

**Amendment to the claims:**

1. (Currently Amended) A magneto-resistive device comprising a substrate which carries a free and a pinned ferromagnetic layer separated by a non-magnetic spacer layer therebetween for providing a magnetoresistive effect, said pinned layer comprising an artificial antiferromagnet layer system (AAF), and an exchange biasing layer, the AAF layer system including at least one CoFe layer, the exchange biasing layer being adjacent to and magnetically influencing the AAF layer system, wherein the free and the pinned ferromagnetic layers are separated by a Cu-type layer, the Cu-type layer on one side both sides being contiguous with a CoFe layer of the free ferromagnetic layer, and on another side being contiguous with the CoFe layer of the AAF system.
2. (Previously Cancelled).
3. (Previously Amended) A device as claimed in claim 1, in which the AAF layer system has an odd number of non-adjacent ferromagnetic layers greater than or equal to three.
4. (Previously Amended) A device as claimed in claim 3, in which the AAF layer system includes three non-adjacent ferromagnetic layers and two intermediate non-magnetic layers, and all said three ferromagnetic layers are CoFe layers.
5. (Previously Amended) A device as claimed in claim 1, in which the exchange biasing layer is arranged between the substrate and the AAF layer system.
6. (Previously Amended) A device as claimed in claim 3, wherein each of said non-adjacent ferromagnetic layers comprises a stack of ferromagnetic layers.

7. (Previously Amended) A device as claimed in claim 6, wherein at least two ferromagnetic layers towards the outside of the stack are thinner than a ferromagnetic layer towards the center of the stack.
8. (Previously Amended) A device as claimed in claim 6, wherein at least two ferromagnetic layers towards the outside of the stack are thicker than a ferromagnetic layer towards the center of the stack.
9. (Previously Amended) A data storage system including a magneto-resistive device according to claim 1.
10. (Previously Amended) A magnetic memory including a magneto-resistive device according to claim 1.
11. (Previously added) A device as claimed in claim 4, wherein each of the intermediate layers of the AAF is a Ru layer.